



Guide for

## Nurse Anesthetists in California

**May also be called:** Advanced Practice Nurses (APN); Advanced Practice Registered Nurses (APRN); and Certified Registered Nurse Anesthetists (CRNA)

### What Would I Do?

Nurse Anesthetists are registered nurses with specialized graduate education who provide anesthesia services ordered by a surgeon, dentist, or other physician. Anesthesia provides patients freedom from pain while undergoing medical treatment. Until the late 1800s, anesthetic agents were not necessarily administered by qualified anesthesia providers. From the mid-1800s to about 1875, there was a high death rate from surgeries. Surgeons determined that, in addition to infection, the lack of trained anesthesia providers were largely to blame. Nurses were the first health care professional group to specialize in anesthesia. Nurses refined procedures and equipment to make anesthesia safer.

In California, Nurse Anesthetists may give anesthesia without a physician's in-person supervision. During major surgery, anesthesia medications slow the patient's vital life functions, such as heart rate. This requires the constant, precise monitoring and adjusting of the anesthetic to keep the patient alive. Other medical procedures may require anesthesia to stop the sensation of pain in a specific area of the body. The patient may be rendered totally or partially unconscious. Anesthesia may be administered through a vein, inhalation, or in the spinal or epidural space.

Nurse Anesthetists evaluate patients prior to surgical, obstetric, or other procedures. They monitor patients during and after surgery or procedures to provide relief from pain, side effects, or complications from the anesthesia. They also prepare and care for tools and equipment as well as provide reports to other members of the health care team.

Nurse Anesthetists may specialize in fields such as cardiovascular, obstetrics, pediatrics, or dental or plastic surgery.

### Tools and Technology

Nurse Anesthetists work with many tools and technological devices, such as blood pressure cuffs, stethoscopes, and catheters. They use machines to administer inhalation agents or monitor cardiac function, mechanical ventilators to support vital respiratory functions, and pulse oximeters to monitor oxygenation. They also use a variety of medical software, such as drug database software, to perform their work.

### Important Tasks and Related Skills

Each task below is matched to a sample skill required to carry out the task.

Task	Skill Used in this Task
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Assess patients' medical histories to predict anesthesia response.	Problem Sensitivity
Obtain informed consent from patients for anesthesia procedures.	Speaking
Develop anesthesia care plans.	Inductive Reasoning
Select, prepare, or use equipment, monitors, supplies, or drugs for the administration of anesthetics.	Judgment and Decision Making
Prepare prescribed solutions and administer local, intravenous, spinal, or other anesthetics following specified methods and procedures.	Information Ordering
Perform or manage regional anesthetic techniques such as local, spinal, epidural, caudal, nerve blocks and intravenous blocks.	Medicine and Dentistry
Manage patients' airway or pulmonary status using techniques such as endotracheal intubation, mechanical ventilation, pharmacological support, respiratory therapy, and extubation.	Deductive Reasoning
Monitor patients' responses, including skin color, pupil dilation, pulse, heart rate, blood pressure, respiration, ventilation, or urine output, using invasive and noninvasive techniques.	Monitoring
Respond to emergency situations by providing airway management, administering emergency fluids or drugs, or using basic or advanced cardiac life support techniques.	Critical Thinking

Source: U.S. Department of Labor [Occupational Information Network \(O\\*NET\)](https://online.onetcenter.org/) at [online.onetcenter.org](https://online.onetcenter.org/).

### **Working Conditions**

Nurse Anesthetists work in clean, well-lit medical settings from large medical centers to small community hospitals. They also work in outpatient surgery centers, pain clinics, and physicians' offices. They are the main providers of anesthesia in rural hospitals and in combat war zones. Nurse Anesthetists work day, evening, and night shifts, as well as on call.

The job can be highly stressful as patients place their lives in the hands of Nurse Anesthetists. Therefore, it is important that they be proactive in relieving their stress. In addition, Nurse Anesthetists may be exposed to infectious diseases and come into contact with potential harmful drugs and other substances. Consequently, they must follow guidelines to guard against contracting diseases and other dangers, such as an accidental needle stick.

Nurse Anesthetists may be members of the California Association of Nurse Anesthetists.

### **Will This Job Fit Me?**

This job may appeal to those who enjoy working with ideas and activities that include practical, hands-on problems and solutions. The job of Nurse Anesthetist requires concentration and acute attention to detail. The ability to work as part of a team is also extremely important. Organizational skills are very important for the workspace and paperwork. Emotional stability and compassion are helpful to cope with human suffering and emergencies.

## ***What Wages and Benefits Can I Expect?***

### **Wages**

Nurse Anesthetists are one of the best-paid nursing specialties, reflecting the high level of responsibility for the profession. A formal salary survey by the California Employment Development Department is not available for Nurse Anesthetists; however, the 2012 median wage for registered nurses (RN) in California was \$89,577 annually or \$43.06 hourly. Nurse Anesthetist salaries depend on the employer's pay structure and the skill of the specialist.

### **Benefits**

Benefits generally include medical, dental, life, and vision insurance, as well as vacation, sick leave, and retirement benefits. Employers may also provide educational tuition reimbursement and shift differential pay for evening or night shifts. Some employers cover malpractice insurance.

## ***What is the Job Outlook?***

The California Employment Development Department has not conducted an employment survey for this occupation, so the number of Nurse Anesthetists in California is unknown at this time. However, according to the California Board of Registered Nursing (BRN), there were 2,190 actively licensed Nurse Anesthetists as of February 2013.

Demand for medical care, including surgery, is expected to increase as the population ages and grows. Nurse Anesthetists provide an economical option for health care facilities trying to keep costs down while meeting the demand for services.

## ***How Do I Qualify?***

### **Education, Training, and Other Requirements**

An individual must be a licensed registered nurse before specializing as a Nurse Anesthetist. To become a registered nurse, one must have a high school diploma or the equivalent, as well as an associate or bachelor's degree in nursing. Those with a bachelor's degree in another field can pursue a nursing degree through a master's program. Others may choose to begin their career as a licensed vocational nurse and continue training to become a registered nurse. The military also offers training. After a year of experience as a registered nurse with a bachelor's or master's degree in nursing, an RN can then pursue a master's or doctorate degree in nurse anesthesia.

### **Experience**

Since nurse anesthetist training programs only admit those with a registered nursing license, candidates have already undergone nursing training, which requires clinical experience. Additionally, a minimum of one year's experience in acute care, such as intensive care, is a requirement to enter nurse anesthetist training programs. According to the American Association of Nurse Anesthetists (AANA), by the time Nurse Anesthetists finish training, each has completed, on average, 2,500 clinical hours and has administered about 850 anesthetics.

### **Early Career Planning**

Those interested in becoming Nurse Anesthetists should take college preparatory courses in biology, chemistry, health science, and computer literacy to help prepare for the college training required. English, math, social studies, and foreign language classes are also helpful. Volunteer work in a hospital or other health care setting provides valuable exposure and skills to help prepare for a health care career. Some Regional Occupational Programs (ROP) offer introductory health care courses for those wanting to explore the field. To find an ROP program near you, go to the California Association of Regional Occupational Centers and Programs website at [www.carocp.org/carocps.html](http://www.carocp.org/carocps.html).

## **Work-Study Programs**

Supervised experience, called clinicals, is an integral part of the training to become a registered nurse. The Nurse Anesthetist training program requires additional clinical experience. Students must balance instructional courses, study time, and clinicals. This demanding schedule can be mentally and physically challenging to students.

## **Continuing Education**

Health care is rapidly changing; therefore, Nurse Anesthetists need to keep current in their knowledge of medical advancements by reading professional or medical journals or participation in professional organizations. However, to maintain national board certification in nurse anesthesia, Nurse Anesthetists must obtain at least 30 hours of approved continuing education every two years. These continuing education requirements also meet the conditions to maintain an RN license.

## **Licensing and Certification**

An active California registered nursing license is required to obtain Nurse Anesthetist certification. The license is offered through the California BRN. To obtain the RN license, applicants must pass the National Council Licensure Examination (NCLEX-RN), pass a background check, and pay the appropriate fees. Additional information is available at [www.rn.ca.gov/applicants/lic-exam](http://www.rn.ca.gov/applicants/lic-exam). Contact the agency that issues the license for additional information. Select the license title below for details.

Nurse Anesthetist at

[www.labormarketinfo.edd.ca.gov/cgi/databrowsing/licensedisplaypage.asp?licid=775](http://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/licensedisplaypage.asp?licid=775)

The National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA) offers certification for Nurse Anesthetists who have an unrestricted RN license. They also must have completed a nurse anesthesia educational program accredited by the Council on Accreditation of Nurse Anesthesia Education Programs. The BRN requires certification by the NBCRNA for Nurse Anesthetists. The BRN issues the two-year certification required to practice as a Nurse Anesthetist.

An applicant must pass an exam and a background check for certification. Applicants must also verify that they are healthy enough to successfully practice nurse anesthesia, which includes no drug or alcohol addiction. Nurse Anesthetists must recertify every two years. Recertification includes verification that they have performed nurse anesthesia during those two years.

Some employers require Basic Life Support (BLS) certification, and some may prefer that applicants have Advanced Cardiovascular Life Support (ACLS) certification.

For more information, go to the U.S. Department of Labor's Career InfoNet website at [www.acinet.org](http://www.acinet.org) and scroll down to "Career Tools." Select "Certification Finder" at [www.acinet.org/certifications\\_new/default.aspx](http://www.acinet.org/certifications_new/default.aspx) and follow the instructions to locate certification programs.

## **Where Can I Find Training?**

There are two ways to search for training information at [www.labormarketinfo.edd.ca.gov/?Pageid=1013](http://www.labormarketinfo.edd.ca.gov/?Pageid=1013):

- [Search by "Field of Study"](#) to find what programs are available and what schools offer those programs. You may use keywords such as: Anesthesia, Anesthetist, and Nurse Anesthetist.
- [Search by "Training Provider"](#) to find schools by name, type of school, or location.

Contact the schools you are interested in to learn about the classes available, tuition and fees, and any prerequisite course work.

## **Where Would I Work?**

A formal industry survey by the California Employment Development Department is not available for Nurse Anesthetists. However, most registered nurses work in general medical and surgical hospitals. They also work in other health care facilities, such as outpatient care centers, and physicians' offices.

## ***Finding a Job***

Direct application to employers remains one of the most effective job search methods. Newspaper classified ads, the Internet, medical recruiters, health care staffing agencies, and professional associations are good sources for job listings. In addition, clinical experience during training provides networking opportunities. Online job opening systems include JobCentral at [www.jobcentral.com](http://www.jobcentral.com) and CalJOBS<sup>SM</sup> at [www.caljobs.ca.gov](http://www.caljobs.ca.gov).

To find your nearest One-Stop Career Center, go to [Service Locator](http://www.servicelocator.org) at [www.servicelocator.org](http://www.servicelocator.org). View the [helpful job search tips](http://www.labormarketinfo.edd.ca.gov/occguides/JobSearchTips.pdf) at [www.labormarketinfo.edd.ca.gov/occguides/JobSearchTips.pdf](http://www.labormarketinfo.edd.ca.gov/occguides/JobSearchTips.pdf) for more resources (requires [Adobe Reader](#)).

### **Yellow Page Headings**

You can focus your local job search by checking employers listed online or in your local telephone directory. Below are some suggested headings where you might find employers of Nurse Anesthetists

- Ambulatory
- Anesthesia
- Hospitals
- Pain Management
- Physicians
- Staffing Agencies
- Surgery Centers

### **Find Possible Employers**

To locate a list of employers in your area, use "Find Employers" on the LaborMarketInfo website at [www.labormarketinfo.edd.ca.gov/aspdotnet/databrowsing/empMain.aspx?menuChoice=emp](http://www.labormarketinfo.edd.ca.gov/aspdotnet/databrowsing/empMain.aspx?menuChoice=emp).

- Select the search for employers by occupation.
- Select a geographic area.
- Search for an occupation by keyword, occupation, or category.
- Select one of the top industries that employ the occupation. This will give you a list of employers in that industry in your area.
- Select "View Filter Selections" to limit your list to specific cities or employer size.
- Select an employer for the street address, telephone number, size of business, website, etc.
- Contact the employer for possible employment.

## ***Where Could This Job Lead?***

Nurse Anesthetists may advance to senior or chief positions or department administrators. With additional education and experience, they may also become instructors.

## ***Related Occupations***

Below is a list of occupations related to Nurse Anesthetists.

- Acute Care Nurses (SOC 29-1141.01)
- Clinical Nurse Specialists (SOC 29-1141.04)
- Critical Care Nurses (SOC 29-1141.03)
- Medical and Clinical Laboratory Technologists (SOC 29-2011)
- Nurse Midwives (29-1161)
- Nurse Practitioners (29-1171)
- Physician Assistants (SOC 29-1071)
- Physical Therapists (SOC 29-1123)
- Registered Nurses (SOC 29-1141)

## Other Sources

- California Board of Registered Nursing  
[www.rn.ca.gov](http://www.rn.ca.gov)
- American Association of Nurse Anesthetists  
[www.aana.com](http://www.aana.com)
- California Association of Nurse Anesthetists Inc.  
[www.canainc.org](http://www.canainc.org)
- National Board of Certification & Recertification for Nurse Anesthetists  
[www.nbcrna.com](http://www.nbcrna.com)

These links are provided for your convenience and do not constitute an endorsement by the EDD.

## For the Career Professional

The following codes are provided to assist counselors, job placement workers, or other career professionals.

System	Code
SOC – <a href="http://www.bls.gov/soc">Standard Occupational Classification</a> at <a href="http://www.bls.gov/soc">www.bls.gov/soc</a>	29-1151
O*NET – <a href="http://online.onetcenter.org">Occupational Information Network</a> at <a href="http://online.onetcenter.org">online.onetcenter.org</a>	
Nurse Anesthetists	29-1151.00
<a href="http://online.onetcenter.org/find/descriptor/browse/Interests/#cur">Interest Codes (RIASEC)</a> at <a href="http://online.onetcenter.org/find/descriptor/browse/Interests/#cur">online.onetcenter.org/find/descriptor/browse/Interests/#cur</a>	IRS
CIP – <a href="http://nces.ed.gov/ipeds/cipcode">Classification of Instructional Programs</a> at <a href="http://nces.ed.gov/ipeds/cipcode">http://nces.ed.gov/ipeds/cipcode</a>	
Nurse Anesthetist	51.3804
TOP – <a href="https://misweb.cccco.edu/webproginv/prod/invmenu.htm">Taxonomy of Programs</a> at <a href="https://misweb.cccco.edu/webproginv/prod/invmenu.htm">https://misweb.cccco.edu/webproginv/prod/invmenu.htm</a> (California Community Colleges)	
Nursing	1230.00
Registered Nursing	1230.10

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